GOVERNMENT OF ANDHRA PRADESH

ABSTRACT

Animal Husbandry, Dairy Development & Fisheries Department – Strengthening of SSVHs, VPCs and AVHs – Permission to purchase Required Material & Equipment through e-procurement – Approval of specifications of items - Approval for Tender Evaluation Committee – Orders - Issued.

ANIMAL HUSBANDRY, DAIRY DEVELOPMENT AND FISHERIES (AH-III) DEPARTMENT

G.O.Rt.No.143

Dated: 01-06-2023.
Read the following:-

1. From the Director of Animal Husbandry, A.P., Vijayawada, Lr.Roc.No.AHF02-TP0MSUP/31/2022-H-TP-DAH, Dt:20.02.2023.
2. Govt.Memo.No.2008192/AH.III/A1/2023, Dt:01.03.2023.
3. From the Director of Animal Husbandry, A.P., Vijayawada, Lr.Roc.No.AHF02-SCH/31/2022-H-TP-DAH, Dt:15.03.2023.

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ORDER:-

In the circumstances reported by the Director, Animal Husbandry Department, A.P., Vijayawada, in his letters 1st and 3rd read above, Government after careful examination of the matter, hereby consider and accord permission to the Director, Animal Husbandry Department, A.P., Vijayawada for purchase of the following items as per requirements mentioned in the table below through e-procurement, with the approved specifications as Annexed to this order.

S.No.	Name of the Item	Requirement
1.	Vital Signs Monitor	8
2.	Inhalation anesthetic machine with automatic ventilation support along with isoflurane vaporizer	5
3.	Veterinary Digital Radiography system of 300 MA X-Ray Machine	12 (11 under RKVY and 1 from RIDF)
4.	Colour Doppler Ultra sound Machine	3 (2 under RKVY and 1 from RIDF)

2. Government also hereby approve the Tender Evaluation Committee with the following members for evaluation of the bids:-

Tender Evaluation Committee:

Sl. No.	Tender Evaluation Committee	Designation
1	Additional Director (AH), Health, O/o DAH, AP, Vijayawada	Chairman
2	Joint Director (AH), SSVH, O/o DAH, AP, Vijayawada	Member
3	Associate Professor/Professor, Surgery and Radiology, NTR college of Veterinary Sciences, Gannavaram	Member
4	Representative from APUIAML, O/o DAH, AP, Vijayawada	Member
5	Joint Director (Technical)/Deputy Director(Technical), O/o DAH, AP, Vijayawada	Member Convener

(P.T.O)

3. The Director, Animal Husbandry Department, A.P., Vijayawada shall take necessary action accordingly.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

GOPAL KRISHNA DWIVEDI
SPECIAL CHIEF SECRETARY TO GOVERNMENT(FAC)

To
The Director, Animal Husbandry Department, A.P., Vijayawada.
Copy to:
OSD to Hon'ble M(AHDDF).
P.S. to Spl.C.S. to Govt., AHDD&F Dept.
SC/SF.

//FORWARDED::BY ORDER//

SECTION OFFICER

Annexure to G.O.Rt.No.143, AHDD&F (AH.III) Department, Dt: 01-06-2023		
Sl. No.	**Name of the Item**	**Item Specification**
1	**Veterinary Digital Radiography System of 300 MA X-Ray Machine**	**Completely integrated (integrated generator and Image acquisition) Direct Digital Radiography system** suitable for Digital radiography application for veterinary purpose. The system should provide Direct digital image immediately after exposure for review purpose, quick diagnosis and better patient throughput .No retrofit System will be excepted. It is possible to do all the general radio logical applications on table (SMALL ANIMALS) and Detector Stand for large Animal X-ray on standing position, High frequency Digital Radiography system with rotating anode X-Ray tube. 3D ceiling suspended stand with manual movements & Detector Stand with inbuilt fixed FPD. The X-ray exposure parameter selection should be from software and the information of the same should be tagged in DICOM information of the final Image. **Generator and tube: -** Generator should be of latest technology with high frequency 50KHz or more X-Ray generator. Constant Power output of 20 KW or more. KV range should be 40 to 125KV in 1KV/step. mA output: 300mA @100KV mAs range should be 1 to 200mAs. Tube should be a Dual focus Rotating anode X-ray tube should be provided. Focal spot size of to 1.5 mm (small focus) or less x 2.5 mm or less (large focus). Anode heat storage capacity should be 140kHU or more Multi leaf Collimator having halogen lamp / bright light source and auto shut provision of the light. HV Cable: 1 Pair of H.V. Cable of suitable 218 length. **TUBE STAND:** The system should consist of a Ceiling mounted tube stand with 3-dimensional movements of the tube head covering a huge area should be provided, Manual movements in longitudinal, and transverse & vertical movement, Tube stand with actuator based/ telescopic noiseless swift motorized up/down movement, Tube head Rotation should be (along vertical axis): ±180° or better. **TABLE (FOR SMALL ANIMALS):** Mobile Diagnostic table should be provided with following dimensions: Length: 1800mm or more Width: 645mm or more Height: 735 mm or less Locks available on front wheels for table stability during exposure. Maximum weight carrying capacity for the table 180Kg or more. **DETECTOR STAND:** Floor mounted detector stand with counter balanced movements for erect/supine examinations. The stand should move entire length of rail. The Bucky should have manual continuous rotation from 0 to 90 degree or more with manual locking facility in between for positioning in various radiographs The Bucky should moves up & down and equipped with inbuilt

		detector. Magnetic locks should be provided for the vertical movement to lock at any position. Bucky should consists of removable grid. Detector stand have provision to do radiography with and without grid. Stand should be On Rails to enable Detector movement to entire length of the patient without repositioning the patient. Maximum scan area without patient movement >1600mm **FLAT PANEL DETECTOR (SINGLE FIXED FLAT PANEL DETECTOR):** Flat panel type Detector with A-Si (amorphous silicon) and CSi as scintillator. Size of detector 43cm x 43cm or better. Active Image matrix 3K x 3Km or better. Image depth 14 bit or more. Pixel size should be 139um or less. Detector resolution 3.3 lp/mm or better. DQE (Detector Quantum Efficiency)-more than 65%. OPERATING STATION/WORK STATION: X-ray/image control console with fully integrated system with following features: Digital Display of KV & mAs. KV & mAs increase and decrease control on G.U.I (Graphical user interface). Self diagnostic Program which can diagnose and display error messages such as KV error, Filament error & Tube's Thermal Overload. Anatomical Programming Radiography (i.e., APR): Preprogrammed parameters of Animal Anatomy which helps the user to select exposure parameters based on body part, examination view and size of the patient. Since it is a computer-based system (full system integration) so any number of Organ programming combinations is possible. User can define his own Organ parameters and can edit the existing parameters to his satisfaction and comfort level. Dual action hand switch & IR remote for ready & Exposure should be provided. **SOFTWARE CHARACTERISTICS:** Software should provide complete control of all image capture functions within the examination room for vetrinary purpose. It should enhance the entire workflow by delivering diagnostic images instantly. It should also allow user to transfer X-Ray images electronically to remote workstations, image archives, and printers, also should have an excellent performance on image quality control such as: MAIN FEATURES:- Digital image processing technology, Preview image in less than 5 seconds, Exam Specific Algorithms image processing for consistent image quality of all body parts, Preset image processing tools for different anatomy, Image cropping, Image mirror, rotate., Image annotation, Add image accept/reject comments, Rejected images archival with provision of converting them to Accepted images, Separate log for Rejected, Accepted and Printed images, True size for 20 printing, Hard disc capacity for image storage > 3000 images, Inbuilt CD/DVD writer facility, Remote online system diagnosis, Remote online software upgrade, Image quality control tools, Easy and quick Offset and gain calibration with bad pixel removal algorithm, Get DICOM work list, DICOM Print, DICOM Store, Support DICOM MPPS. **Workstation along with monitor:** 1 No. 19" LCD/TFT Medical display monitor to be provided.

		Accessories: -Servo Voltage Stabilizer of Suitable rating for complete should be provided, 2 nos lead Aprons of 0.5 MM lead equivalence, 3 fold lead protection barrier. **OTHER REQUIREMENTS AND CERTIFICATIONS:** -Warranty 3 years. The company should be ISO13485 and ICMED13485 certified. The unit should be approved by AERB. The company should have valid import/ manufacturing licence from central licensing authority or state licensing authority of CDSCO for medical device The company should have proven track record in Govt. sector. The Generator, detector and console software should from the same principal company of Digital X-Ray system for seamless connectivity and consistent image quality After completion of 5 years warranty period, quote CAMC for next 5 years.
2	**Vital Signs Monitor**	• Monitor should be veterinary specific • Minimum 12" high resolution colour TFT LCD display • Real time ST Segment, pace maker detection • patient info input management system and indication of incorrect manipulation and malfunction analysis • capture dynamic waveforms • Should have following parameters • ECG, Respiration, NIBP, SPO2, 2 Temperature and PR/HR • All Probes should be veterinary specific • All sizes of NIBP cuffs for various animals (Enclose catalogue with pictures) • Spo2 sensor should be able to give correct readings while attached to tongue / tail or perforated areas of animals • Multi lead ECG waveforms display in phase • Large easy to ready values of veterinary parameters • Should be upgradable to IBP and ETCo2 • enclose catalogue to ensure that all leads are for veterinary use • human monitors are not acceptable
3	**Inhalation Anesthetic Machine**	• Small animal anesthesia machine with vaporizers • Should have 1500cc heavy duty "Coaxial" absorber, recessed. • Preferably moulded Canister • Should have Single large thumbscrew canister release • Should have 1 to 4 lpm precision Oxygen flow meter and Rotary float and large scale for improved readability. • Should be supplied with Isoflurane and Sevoflurane vaporisers • Should have recessed flush valve to prevent accidental activation and Quick connect fresh gas outlet for easy and secure switching between breathing circuits. • Should have creservoir bags 0.5L, 11, 21, 31, and Sits. • Should have Large Quick Lock Inspiration and Expiration domes for easy access and visibility. • Instrument shelf. stainless steel • Momentary closed feature incorporated into our pop-off valve.

		• Circuit pressure gauge, easy to read and large • Patient circuit pressure alarm audible. Rotating bag mount for ease of visibility and easy access • Fairy good built in Evacuation connector. • High stability frame with good long lasting finishing. • Large heavy duty cushioned castors, 2 with locks, for easy glide and long life. • Easy compatibility for easy installation of brain circuit and scavenger interface. • Oxygen supply hose 9ft. Patient circuit with 2 and 3 L bags • Drawer module atleast 4 drawers with Larger Monitor shelf. • Two bulk oxygen cylinders, cuffed endotracheal tubes of all sizes and re-breathing bags to be included in the supply list. • Scavenger interface, Preset regulator • Should have all sizes of available Veterinary specific masks with diaphragms from small feline to large canine • Minimum three Onsite warranty
4	**Ultrasound colour Doppler system dedicated veterinary application**	• The system must be high end and state-of-the-art with fully digital technology equipment to incorporate the facility of 2D, 3D/4D, M-Mode, CDI, PW Doppler, CW Doppler, Power Doppler, Directional Power Angio, Contrast Imaging, Cardiac imaging for adult, pediatric and neonatal patients and Elastography imaging applications. • System must be offered with a minimum of 4000000 or more digital processed channels. Please attach a technical data sheet to support the number of channels on the systems. • System must be offered with 21 inch or more High Resolution Flat Panel LED Monitor with nearly infinite position adjustments. • Full screen visualization of ultrasound image on 21" monitor should be available on board • System must be offered with user friendly high resolution user interface touch panel which is minimum 10 inch (+/- 1). User friendliness will be given priority. • System should have minimum 3 active Imaging pin less ports with electronics switching facility from key board. • The system should be supplied with latest technology probe i.e. single crystal/matrix technology. System quoted with normal technology probes will be liable for rejection. Probe technology should be mentioned in brochure/technical data sheet or attach a letter from the manufacturer. • Operating modes B-mode, M-Mode, B/M Mode, Doppler Mode, Colour Flow, Power Doppler, DCA/DPA, 3D/4D, B/Colour flow, PW Doppler, CW Doppler. • System should support broad band frequency probes spanning a frequency of 1-22MHz. • System should have a dynamic range of minimum 270 dB or more so that variety of patient sizes can be handled without compromise. Please mention dynamic range in the technical bid with supporting specification sheet. • Cine loop as well as cine scroll facility in B mode and Doppler mode with storage of 1500 or more images should be available. Cineloop frames should also be available for abdominal contrast. • Should have the state of the art Transmit Real Time Compound Imaging Technology with Multiple transmitted lines of sight, wherein Multiple Coplanar Images from

		different viewing angles are obtained and combined into a single compound Image at real time frame rates for improved visualization. Should demonstrate and show multiple transmitted line of sight. • Auto trace & automatic Doppler calculations should be available. • System should have comparison with archive image with live image side by side. • System must be offered with High Definition Speckle Reduction Imaging which is real-time algorithm that increases contrast resolution by reducing speckle noise while maintaining true tissue appearance Image processing technique to remove speckles and clutter artifacts. • System should be capable of scanning depth of 36cms. Scanning Depth should be clearly mentioned in the technical quote. • System must be offered with 2D frame rate of atleast2000 frames per second or more. Acquisition frame rate should be clearly mentioned in the technical quote. • Image Archival on Hard Disk Capability to directly store images and video loops in the in-built Hard Disk Drive. • Image storage capacity on hard disk drive should be minimum 500 GB or more. • The system should be upgradable to real time 3D/4D scan • The system should have latest advanced skin coated/skin texture technologies in 4D for better visualization for face and limbs. • System must have MPR imaging in 3D and 4D scan. • The system must have thin slice and thick slice imaging in 3D/4D scan • System should be upgradable Ultrasound contrast (CEUS) on Cardiac probe. • Quoted system must have European CE and US FDA certification and along with manufacturer ISO Certifications. **System must be the following transducers** • **Broad Band Micro Convex Transducer 3-11 MHz** for pregnancy studies in small and large animals. • **Broad band Single Crystal Cardiac Transducer 1-5 MHz** for advanced Cardiac examination in Equine, Small and large animals • **Broadband Matrix Linear probe (4-15 MHz)** for MSK and small parts in Small and Large animals • **Broadbank Matrix Convex Probe (1-8 MHz) for** Abdominal applications in Small and Large Animals • **With 3 years warranty from the date of installation** • **After completion of 3 years warranty period, quote CAMC for next 5 years.**

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